

This document describes new features and resolved issues in this AirWave release.

- [“What’s New in This Release” on page 1](#)
- [“Changes” on page 4](#)
- [“Resolved Issues” on page 9](#)
- [“Known Issues” on page 15](#)

What’s New in This Release

Faster Default Search Results; Option for Expanded Results Available

Search is now faster! Now when you enter a search term in the **Search** bar on any AMP page, the search results filtered across a handful of common categories (active Clients, APs, Controllers, and Switches) instantly display in a pop-up window. You can then select a link inside this window to expand the results to include Rogue Devices, Groups, Folders, VPN Sessions, Tags, and Historical Clients and Sessions, but more time will be required to return expanded results. In the documentation, these are often referred to as the “Full” search results.

AirWave UI Terminology Matches AOS Terminology: Clients, Usage, and Speed

The **Users** tab has been renamed **Clients**, and most other UI elements with the term “users” are now known as “clients.” The **User Session** report is now the Client Session Report. “Users” will still refer to people and usernames, and “Clients” will be used for entities with MAC addresses. This change makes AirWave interface text usage more consistent with ArubaOS usage.

Similarly, the word **Bandwidth** has been changed in most pages to **Usage**. As a combined example, the **User Bandwidth** trigger is now known as the **Client Usage** trigger.

References in the UI to **Data Rate** have been changed to **Speed**, such as the new Speed interactive graph in the **Clients > Client Detail** page.

Maintenance Windows

AirWave can now automate the manual action of putting multiple devices into Manage mode at once so that changes can be applied, and after the maintenance period is over, the devices automatically revert to Monitor-Only mode.

Maintenance windows can be set as a one-time or recurring event on the **APs/Devices > Manage** and **Groups > Basic** page. You can also use the **Modify Devices** link to add or delete maintenance windows to multiple selected devices at once. Additionally, this feature can be used on Master Console to set maintenance windows for multiple AMPs.

New Helpdesk

The previous Remedy-based Helpdesk has been removed from AMP. In its place is an entirely new interface accessible to Helpdesk-enabled roles. The new Helpdesk displays client problem information in fast-loading line and pie graphs with zoom capability, and allows users to drill down to information more quickly.

Admins setting up an AMP user role can set the default page upon login to be the new **Clients > Diagnostic** helpdesk page; this hides the tabbed navigation bar, but the role will still be able to access other AMP pages by editing the URL. Admins should ensure that a role with the **Display client diagnostics screens by default** setting enabled also has the appropriate access and device management privileges desired for this role.

Improved Clients > Diagnostic Page UI

The **Clients > Diagnostic** page has a new look and feel that makes it easier to review and troubleshoot clients at a glance. Besides the familiar Device Info and Current Association section, this page now contains trend graphs for signal and noise, SNR, and client usage, and the relationship between the client and the controller is displayed across the top. Each client as well as its associated network, AP, and controller is given an overall Quality rating based on the number of auth errors and alerts that indicate possible issues.

Planned Maintenance Mode

A new setting on AP list tables called **Enable Planned Maintenance Mode** puts all devices into planned maintenance. The **Ignore** button has been removed from the **APs/Devices > Manage** page and the **Modify Devices** list; instead, a new planned maintenance mode setting can be enabled. Changes to the **Device Down** trigger that are related to planned maintenance are mentioned in the [New and Enhanced Triggers and Trigger Conditions in AMP](#) section of these release notes.

During the maintenance mode, no AP Down triggers will be deployed on these devices. Users will not be able to delete folders that contain devices in Planned Maintenance. The devices in Planned Maintenance will show the **Up** status, but will not be tracked in historical graphs and logs as Up. The **Device Uptime** report can be optionally configured to ignore these planned downtimes.

Improved Device Uptime Report

The **Device Uptime Report** summarizes uptime by AP, controller, switch, or universal device, and contains four new columns for Aruba devices that track bootstrap count (number of times the device has gone down for a firmware change), reboot count, downtime duration, and downtime duration percent. As mentioned above, you can optionally ignore device downtime during planned maintenance periods in this report, and you can restrict the report to business days only.

Localized Login Screen

The AirWave login screen now allows you to set one of three available languages. AMP will remember the selected language until you log out and select another. A limited set of new UI elements have been localized in Japanese and Simplified Chinese. In future releases, additional UI elements will be localized and additional languages will be added.

Globally Remove Role-Based Report Visibility

A new setting on **AMP Setup > General** allows administrators to remove role-based reporting in AMP. By default, the **Allow role based report visibility** setting is enabled. When disabled, reports can only be generated with by-subject visibility.

Auto-Authorization Rules for Controllers and APs

Added a new **Automatic Authorization** settings section to **AMP Setup > General, Groups > Basic**, and **Device Setup > Discover** (add/edit scan set). These settings allow the user to control the conditions by which devices are automatically authorized into AP groups and folders. AMP validates the Folder and Group to ensure that both settings have been set to valid dropdown options.

The choices are to add new controllers, autonomous devices, or thin APs to the New Device List, the same Group/Folder as the discovering devices, the same Group/Folder as the closest IP neighbor, and/or a specified auto-authorization group and folder.

Global settings on **AMP Setup > General** can be overridden in **Groups > Basic**. In **Device Setup > Discover**, you can also set the **Add New Devices** location when you set up a new scan.

Automatically authorized devices are authorized in **Monitor-Only** mode.

IPv6 Support in AMP

The **Client Session** report (formerly User Session) for AMP and Master Console, the Master Console **Client Inventory** report, client search results, **Clients > Connected** page, and **APs/Devices > Monitor** client list tables (as well as the CSV export of these tables) now accommodate multiple IP addresses and hostnames for clients. The LAN IP Addresses LAN Hostnames aggregate columns were added to these pages and reports.

PHY Data Rate (Speed) and Goodput Tracking

AirWave now tracks and displays the packet and byte counts of data frames successfully transmitted to and received from associated stations on the **Clients > Connected** and **Clients > Client Detail** pages. This data is referred to as “Speed” in the UI.

The RF Health Report lists devices with least Client Speed (frames per second data rate) and “Goodput” – the ratio of the total bytes transmitted or received in the network to the total air time required for transmitting or receiving the bytes – and Radios with Least Goodput. Goodput will be further explained in the a future version of ArubaOS documentation and the *AirWave 7.4 User Guide* in **Home > Documentation**.

New triggers for Client Goodput and Client Speed have been added to **System > Triggers**.

Multiple Device Name Edit in Modify Devices

Device names are now editable, either singly or in bulk, in the Modify Devices view. Select checkboxes for one or more devices, enter new device names in the fields, and select the **Rename** button.

Group and Folder Information in API

Elements representing AP Group and Folder path are now included in the AP Detail XML API. See the API documentation for details.

Architecture Information on System > Performance

An AMP’s architecture implementation is now shown in the **System > Performance** page in AMP under the **Kernel** text section.

Hide Setup Pages from Non-Administrative AMP Users

A single new option in **AMP Setup > General** named **Hide setup pages from non-admin users** will restrict access to following pages to users with the **AMP Administration** role only:

- **VisualRF > Setup**
- **AMP Setup > NMS**
- **RAPIDS > Score Override**
- **RAPIDS > Rules**
- **RAPIDS > Setup**
- **System > Triggers**

New and Enhanced Triggers and Trigger Conditions in AMP

In order to check for DHCP server problems, a new trigger called **IPv4 Link-Local Addresses** has been added to **Systems > Triggers**. When enabled, this trigger will check whether the total count of self-assigned IP addresses has crossed a set threshold for clients within a selected folder or group. The alert deployed by this trigger includes a link to search for IP addresses containing 169.254.x.x.

A **Minutes Down Threshold** trigger condition has been added to the **Device Down** trigger. Triggers with this condition enabled will compare the amount of time an AP has been down to the value (in minutes) set for the condition.

Also on the **Device Down** trigger, a new option to **Limit by number of down events** has been added. When enabled, you can set the number of down events that activate the trigger, as well as the duration of the time window to be measured. AMP will then count the number of times that the device has gone from Up to Down in the specified span of time and display this in the **Device Down** alert.

New triggers for **Client Goodput** and **Client Speed** have been added to **System > Triggers**.

New triggers for VPN and RAP users are detailed in the [Aruba Enhancements](#) section of this Release Notes document.

Changes

Changes to AMP were added in the following general categories:

- “[Aruba Enhancements](#)” on page 4
- “[RAPIDS](#)” on page 6
- “[VisualRF](#)” on page 7
- “[Alcatel-Lucent Enhancements](#)” on page 7
- “[Cisco Enhancements](#)” on page 7
- “[Security](#)” on page 8

Aruba Enhancements

Single sign-on between AirWave and a future version of ArubaOS has been added. This allows a user to log in to an AMP and then use the **IP Address** or **Quick Links** hypertext to visit the Web UI of any Aruba controller managed by that AMP and accessible to the user, without having to enter credentials to the controller. AMP's affected pages are as follows:

- URL links to devices will now point to /sign_on for Aruba single sign-on if three conditions are met: The **Enable Single Sign-on** is set to **Yes** in **AMP Setup > Authentication**, the device is running ArubaOS versions later than 6.1, and the link uses HTTPS.
- The affected links can be found on the **APs/Devices > Monitor** page in the **Device Info** section as 'IP Address' and 'Quick Links' to the device's web UI. Links can also be found on **APs/Devices > List** and similar pages.
- To use, it must be enabled per-role on **AMP Setup > Roles**, and is disabled by default for existing roles as well as newly created ones.

VPN users, including users on Aruba VIA, can now be monitored on AMP as follows:

- A new subtab, **VPN Sessions**, can be displayed under the **Clients** tab. This page displays active VPN Sessions along with device type and HTTP fingerprinting information.
- VPN Users are now shown in Full (slower) search results within AMP in the **VPN User** column. On the Master Console search results, VPN User Count displays in **Devices**, **Groups**, and **Folders** sections. For a regular AMP, VPN User Count displays in the **Folders** section of the full search results.
- **Groups > List** now includes a new column displaying the **VPN User Count** for a group.

- When a VPN User is selected, a **VPN User Detail** page displays with current VPN sessions, a client and usage interactive graph, and historical VPN sessions list table.
- The supported VPN legend items in the **Clients** graph are Max VPN Sessions and Avg VPN Sessions; in the Usage graph, Avg Bits Per Second In for VPN Sessions, Avg Bits Per Second Out for VPN Sessions, Max Bits Per Second In for VPN Sessions, Max Bits Per Second Out for VPN Sessions are shown.
- VPN User Count information displays on a controller's **APs/Devices > Monitor** page.
- New triggers have been added such as **New VPN User**, **Connected VPN Users**, and **VPN Session Usage**.
- AMP displays the VPN client count and bandwidth legend in the Clients and Bandwidth interactive graphs found in **APs/Devices > List**, **APs/Devices > Up**, **APs/Devices > Mismatched**, and **Groups > Monitor**.
- A new **VPN Session** report features a chart of total user count for the included controllers, a summary of total connections and sessions, HTTP fingerprint information, device types, all unique usernames, total time spent, average time spent, and average connections per username. Optionally, the report can include a list of all VPN connections and can be limited to Aruba VIA users only.
- The Alert Summary table appears in **Clients > VPN Sessions**, **Clients > VPN Users** and **Clients > VPN User Detail** pages..
- A VPN user and bandwidth chart has been added on the **APs/Devices > Monitor** page for controllers. The bandwidth information is available from ArubaOS 6.1.0.0 firmware and later.

Support has been extended for the **Aruba Mobility Access Switch**:

- Most fields in the following Aruba Configuration profiles are supported for the Mobility Access Switch: AAA, 802.11 Auth, Policies, MAC Auth, Internal Server, User Derivation Rules, Server Groups and Servers, User Roles, Netservices, Net Destinations, SNMP, and new default profile instances. Per-interface configuration is also supported.
- Added **Profiles > Mobility Switch** which includes IGMP Snooping, Port Switching, Ethernet Link, and VLAN profiles in Aruba Configuration.
- A new **Wired Clients Usage** graph tab has been added to the **Interface Monitoring** page for the Mobility Access Switch. This graph displays average and max bps data for that particular interface, both in and out.
- On the **APs/Devices > Monitor** page, the wired SSID displays on the Usage (formerly Bandwidth) graph as the aggregated "Wired Clients" for that device.
- Stacking status and relationships for the Aruba Mobility Access Switch can now be monitored in AMP.

Support has been extended for **Aruba AirMesh**:

- AirMesh APs now support rebooting while in Monitor-Only mode in AMP.
- During client monitoring using AirMesh, AMP now retrieves channel width, cipher, and antenna gain information per radio. The per-radio antenna gain is also sent to VisualRF.
- Upgrading the firmware of Aruba AirMesh devices through AMP have been improved. The process of downloading the upgrade and rebooting are now separate processes, and devices are rebooted only after they have been successfully upgraded.
- Client mode has been added as a radio role option.

Support has been extended for **Aruba Instant**:

- AMP now collects and processes IDS and authorization failure events from Aruba Instant IAPs in the same way as other SNMP traps. These events can be found in the Device Event log.
- AMP now supports Aruba Instant firmware version 6.1.2.0-2.0.0.0 which contains configuration template updates. Multi-platform image upgrade is now supported for Aruba Instant 6.1.2.0-2.0.0.0_30206.
- Aruba Instant uptime is now tracked.

- IAPs in an Aruba Instant implementation can be rebooted all at once in AMP.

Support has been extended for Aruba **Remote Access Points (RAPs)** that will run an upcoming version of ArubaOS:

- The **Device Info** section in the **APs/Devices > Monitor** page for a RAP now displays the **Remote LAN IP Address** (used for local network troubleshooting), **Tunnel IP Address** (used for testing controller connectivity), and **Outer IP Address** (tracks RAP location or an ISP-modified address). Any changes to any of these IP addresses are logged.
- The **Device Info** section also includes **Active Uplink** (either **Ethernet** or **USB**) information for the RAP if it's on a 6.2.x.x controller.
- The **APs/Devices > Monitor** page for a RAP includes a **USB Interface Summary** section with the device number, network service level, status, operational status, RSSI, and usage. USB usage is tracked in the RAP's **Usage** (formerly Bandwidth) graph.
- A new trigger called **Device Uplink Status** has been added to **System > Triggers**. This trigger deploys whenever the active uplink changes from Ethernet to USB or vice versa. The corresponding events are captured in a RAP's **APs/Devices > Monitor** page.
- **APs/Devices > Monitor** pages for RAP devices now include a second set of Quick Links with RAP-specific debugging commands such as `show ap database usb`, `show ap debug usb ap-name <ap-name>`, `ping` and `traceroute`.

Added mesh support for the Aruba AP-175 such as link signal, link signal-noise ratio, link tx/rx rate, and mesh cluster ID.

Added support for Aruba AP Up/Down traps. On ArubaOS firmware version 6.1, AMP only responds to the `wlsxNAPMasterStatusChange` trap. On earlier versions, AMP uses the `wlsxNAccessPointIsUp` and `wlsxNAccessPointIsDown` traps.

Additionally, AMP ignores `wlsxNAccessPointIsDown` if it arrives from a different controller than the AMP knows it to be on. Polling is necessary with this change because previously AMP would not detect a change in the switch role unless AMP audited the controller, and groups can now have audit disabled.

AMP now monitors interfaces on Aruba controllers to help facilitate wired user monitoring. On an Aruba controller that uses templates for configuration, the interfaces that go into the template are now called "Managed Interfaces" on the **APs/Devices > Manage** page to prevent confusion with the monitored Aruba interfaces that will appear in the **APs/Devices > Interface Monitoring** tab.

Wired users can be monitored on Aruba controllers, including tunneled users. The total client count on an Aruba AP Group page now includes clients on controllers. The Client Count graph in **APs/Devices > Monitor** page for Aruba controllers now includes wired clients.

RAPIDS

Rogue clients are now tracked on AMP as follows:

- Full search results on a regular AMP (not Master Console) now include rogue clients in their own section, visible only to users with access to RAPIDS information.
- A new subtab has been added under the **Clients** (formerly **Users**) tab named **Rogue Clients**, which displays valid and currently connected rogue clients. Selecting a MAC address will jump to the **Clients > Client Detail** page for that rogue client. Selecting the Rogue AP link will jump to the **RAPIDS > Detail** page for that AP.
- In **Clients > Client Detail**, a new table called **Rogue Association History** displays historical rogue associations for the selected client.
- In **RAPIDS > Detail**, a new table has been added called **Rogue Client Associations**.
- A new trigger called **Client on Rogue AP** has been added under IDS Events, with two conditions: Classification of Rogue Device, and Client Type (valid or otherwise). For instance, this trigger can be set

to fire when a user associates to a “Suspected Rogue” AP. This trigger can generate an NMS trap called ClientOnRogueAP.

- A new trap, rogueAPDetectedDetail, is sent when the **Rogue Device Classified** trigger is enabled. This trap includes the last discovering agent and the folder name of the rogue device.
- New Rogue Classification rules have been added, such as **Valid User Count** and **Detected Client Count**.
- **RAPIDS > List** now displays current and max associations as columns, and rogue alerts now include current and max client associations.
- The **New Rogue Devices** report now includes the maximum number of client associations to rogue APs. The new Rogue Client Report tracks the number of valid users that connected to rogues in the specified time frame, and can be filtered by rogue classification.
- When a rogue client associates to a valid AP, it is no longer considered a rogue client.

VisualRF

- The workflow for matching planned APs to managed APs is now faster and more efficient. A new right-click option on a network, campus, or building is **Auto-Match Planned Devices**. If this option is used on a campus, then all planned APs in that campus are checked. If used on a building, then all the APs in that building are checked. If used on a floor, then all APs on that floor are checked. Planned devices first attempt to auto-match on MAC address, and then by name. The VisualRF MAC address checks against all of the LAN MAC addresses of a deployed AP.
- Added a Plan by User Capacity feature to assist in planning APs by setting both the anticipated number of clients that will be stationed in a region and the maximum number of clients supported by each radio.
- For customers that do not use background maps for their campus/building placements, VisualRF has a new option to auto-arrange buildings or campuses and move them into an alphabetical list.
- VisualRF can now determine the GPS location coordinates for APs, clients, rogues, and RFID tags on a floor plan when you set latitude and longitude information from the **Edit** menu. Altitude can be entered as the floor number. Updating the coordinates for a floor will update it for the entire building’s other floors.
- A new setting in **Preferences** can be enabled in the Building and Campus views to highlight APs that may have been incorrectly placed.

Alcatel-Lucent Enhancements

- Basic monitoring support has been added for Alcatel-Lucent OmniSwitches. This includes support for SNMP monitoring, interface monitoring, upstream device polling, and retrieving model and serial information for the device.
- Support for discovering and monitoring Alcatel-Lucent switches and interfaces on a stacked switch configuration has been added to AMP.

Cisco Enhancements

- AMP has added the Bridge Mode setting for additional LWAPP AP types. Previously, Bridge Mode was only configurable for Cisco 1500 and Cisco 1030 LWAPPs. Now, Cisco 1130, 1140, 1240, 1250, 1260, 1300, 3200, and 3500 LWAPPs support configuring Bridge Mode.
- To speed up provisioning, AMP users can now add groups of controllers to a Cisco WLC mobility group. On the **Group > Cisco Config > Controller > Mobility Management**, the dropdown contains the option to **Select by AP Group**. Once selected, a checkbox list of the AMP groups with controllers displays. Desired mobility group elements can then be added to the group of controllers. A checkbox is removed from the list when its corresponding WLC Mobility controller element has been created. If a newly created controller element is reverted, its checkbox will reappear in the **Select by AP Group** list.

- Cisco WiSM 2 devices added to the AMP as a generic type will convert to the Cisco WiSM specific type. Also, generic WLC and IOS types will not convert to the generic Catalyst type, but will convert to specific Catalyst types.
- Added support for the Cisco IOS 1260 series (1261 and 1262 models).
- Added support for the Cisco WLC 2500 controller.
- Added configuration support for Cisco Remote LANs.

Security

The following packages were updated with security-related fixes:

- **rsync:** <https://rhn.redhat.com/errata/RHSA-2011-0999.html> and <http://rhn.redhat.com/errata/RHSA-2011-0999.html>
- **bash:** <https://rhn.redhat.com/errata/RHSA-2011-1073.html>
- **dbus:** <https://rhn.redhat.com/errata/RHSA-2011-1132.html>
- **libXfont:** <https://rhn.redhat.com/errata/RHSA-2011-1154.html>
- **kernel:** <https://rhn.redhat.com/errata/RHSA-2011-1212.html> (kernel-2.6.18-274.3.1) and <https://rhn.redhat.com/errata/RHSA-2011-1386.html> (2.6.18-274.7.1.el5.x86_64)



All httpd users should upgrade to these updated packages which contain a backported patch to correct this issue. After installing the updated packages, the httpd daemon must be restarted for the update to take effect. For more information, contact AirWave support.

- **APR packages:** <https://rhn.redhat.com/errata/RHSA-2011-0844.html> (apr-devel-1.2.7-11.el5_6.5)
- **postfix:** <https://rhn.redhat.com/errata/RHSA-2011-0843.html> (2.3.3-2.3.el5_6)
- **selinux:** <http://rhn.redhat.com/errata/RHBA-2011-1069.html>
- **lvm2:** <http://rhn.redhat.com/errata/RHBA-2011-1071.html>
- **sendmail:** <http://rhn.redhat.com/errata/RHSA-2011-1127.html>
- **ntp:** <http://rhn.redhat.com/errata/RHSA-2009-1039.html>
- **pango:** <http://rhn.redhat.com/errata/RHSA-2011-1326.html>
- **freetype:** <http://rhn.redhat.com/errata/RHSA-2011-1402.html>

The security-hardening *stig.pl* script was updated with new restrictions; re-run the script to implement the following:

- Global system password configuration files are now configured per guidelines. For example, PASS_MIN_DAYS is now set to greater than 0.
- System passwords must now be changed at least every 60 days.
- System passwords can no longer be reused within the last five changes. For example, PDI : Remember is not set in /etc/pam.d/system-auth.
- The root system account can no longer be directly logged into from other than the system console. /etc/securetty did not define 'console' or a tty device as the console, or defined multiple root login devices on localhost.localdomain.

Resolved Issues

Table 2 below lists resolved issues in AirWave 7.4.0:

Table 1 *Resolved Issues in AirWave 7.4.0*

ID	Description
DE9863	The Data Retention settings in AMP Setup > General now work for the failed reports, based on the failed report's generation date.
DE9961	VisualRF: Removed Aruba AirMesh devices from the Add Planned APs option.
DE10039	The Dell PowerConnect W-Series 651 controller now deletes internal APs the same way as the Aruba and Alcatel-Lucent-branded 651 controllers.
DE10240	The Aruba License report has been separated into two parts: a summary report and a detailed report.
DE10311	VisualRF: Sensor coverage bleedthrough to above and below floors now works correctly.
DE10426	Aruba Instant: When a Virtual Controller fails to authenticate to AMP because of shared secret mismatch, it will be marked down with status "Mismatched Virtual Controller shared secret". The APs/Devices > Manage page now allows you to edit the shared secret AMP is expecting, and in the case of a mismatch, the "View Device Credentials" link will display AMP's secret as well as the secret last received from the Virtual Controller.
DE10472	Maintenance Windows will now have editing disabled (the pencil icon will be hidden) when its state is In-Progress. The State displays in the Maintenance Window list in the APs/Devices > Manage page.
DE10480	VisualRF: The IDF region now displays properly on a floor plan when logged in as a helpdesk user.
DE10492	On Clients > Diagnostic page, a new 'Unassociated APs' count has been added to the Controller information panels next to 'Down APs' to account for APs not associated with a controller.
DE10564	Fixed inconsistencies in the graph key values for the Network Usage Report. The Network Usage Report for a Managed AMP now displays Usage avg key values as 'Avg Bits Per Second' rather than 'Bits Per Second'. The legends Avg In/Out and Max In/Out have been changed to Avg/Max In and Avg/Max Out on the Master Console version of this report.
DE10611	Updated kernel. See Security section of this document for more details.
DE10624	Fixed a condition that could result in Aruba Instant importing an empty template in AMP. AMP waits to create a template until it has fetched the configuration, and checks whether the IAP currently already has a template. This change also restores the original behavior where a template would be auto-created anytime the IAP has no current template. Empty templates will be deleted until they can be created with the proper configuration.
DE10633	The security updates to apr and postfix will now install on an upgrade from 7.3.x, rather than in fresh installations only.
DE10661	In AMP Setup > Roles, renamed 'Restrict to New Helpdesk' setting to 'Display client diagnostics screens by default'. When this option is selected, AMP displays an additional message: 'Users will be able to access other pages outside of the client diagnostics screens by entering URLs directly. Ensure that other settings above are correct.'
DE10681	VisualRF: Overlays that use the Frequency options can now restrict to display 5 or 2.4 GHz on floors above or below the current floor.
DE10686	VisualRF: Individual changes to clients (device overrides) no longer require a VisualRF restart.
DE10697	In the Clients > Diagnostics page, the Memory Utilization threshold has been increased to 80% and 90% for controllers and as well as switches.

Table 1 *Resolved Issues in AirWave 7.4.0 (Continued)*

ID	Description
DE10691	Software updates for Aruba- and AirWave-licensed customers are no longer downloaded from airwave.com. They are now downloaded from support.arubanetworks.com. For this upgrade alone, you will be prompted for your airwave.com credentials, and subsequently for your support.arubanetworks.com credentials. Future upgrades will only prompt for your support.arubanetworks.com credentials.
DE10699	Unresolvable mismatches no longer occur for standalone Aruba Mobility Access Switch interfaces in Group Configuration mode. You can now choose No MAC Limit in the Interface Configuration page.
DE10703	AMP event logs and audit logs for devices now indicate the start and end times for Maintenance Windows.
DE10719	In Home > Documentation , the spreadsheets for wireless devices, wireless firmware versions, and wired devices have been replaced by a single, simplified document called AirWave Supported Infrastructure Devices . This document focuses on the minimum and maximum firmware versions for supported devices.
DE10727	Removed the “All Records” pagination option from System > Alerts .
DE10728	Updated freetype packages. See the Security section of this document for more information.
DE10739	VisualRF: Fixed a problem in which campus positions could be lost and the network background truncated on an upgrade from 7.2.x or 7.3.x.
US7587	Updated ntp to 4.2.2p1-15. See the Security section of this document for more information.
US7776	Aruba Mobility Access Switch: Can now modify Port Channel Members for port-channel interfaces via a checkbox menu.

Table 2 below lists resolved issues in AirWave 7.4b6:

Table 2 *Resolved Issues in AirWave 7.4b6*

ID	Description
DE9529	Updated APR packages: https://rhn.redhat.com/errata/RHSA-2011-0844.html apr-devel-1.2.7-11.el5_6.5 Updated postfix: https://rhn.redhat.com/errata/RHSA-2011-0843.html new: 2.3.3-2.3.el5_6
DE9642	VisualRF: Previously, a VisualRF restart was required in order for APs to come back up after a backup restore. This has been fixed.
DE9872	Security updates to lvm2, rsync, selinux, sendmail (see Security section of this document)
DE9898	VisualRF: Previously, importing an unsupported file type would appear to be successful. Now, files are validated and AMP displays an error message if the filetype is unsupported.
DE10156	VisualRF: The Auto-matching of planned APs by name now works consistently.
DE10285	AMP now alerts the user to fix any server time discrepancies between a Managed AMP and Master Console (or a watched AMP and a Failover AMP).
DE10359	Fixed an issue that caused RSSI historical charts to not display data on a USB monitoring page.
DE10432	Security update RPM RPMs to 4.4.2.3-22.el5_7.2
DE10463	Cisco WLC WLAN page now only allows 'No Encryption' as a valid security mode for remote LANs.
DE10512	Security updates to lvm2, selinux, dhcp packages. Included dependencies which may be not present on earlier CentOS 5.x installs.
DE10528	Added a workaround to an ArubaOS 5.0.0.0 issue that would cause VIA clients to not appear on AMP.

Table 2 *Resolved Issues in AirWave 7.4b6 (Continued)*

ID	Description
DE10534	Changes to Full Search: - Fixed an issue that caused Full Search in 7.4 to run much slower than 7.2. - Search results for connected clients will not display any historical IP addresses of a currently connected client. - Search results for historical clients will only display the most recent IP address of a client session.
DE10573	The folder list XML now includes mismatched devices and vpn client counts.
DE10583	VisualRF: Fixed an issue that caused an unscaled original.jpg to display in Network View, rather than background.jpg.
DE10588	VisualRF: Planning by signal and data rate now results in the same number of APs.
DE10644	VisualRF: Fixed an issue that caused menus to disappear and the window to jump across the screen when the required Flash plugin is refreshed.
DE10653	VisualRF: Fixed an issue in which the network background image would be lost after restoring a backup
DE10643	AMP no longer displays password changes in plaintext on the confirm page.
DE10709	Deauthenticate Client button now works correctly - selecting it sends a command to delete the MAC of the user.
US7790	The Client Sessions Report no longer stores all the client records and APs in memory.

[Table 3](#) below lists resolved issues in AirWave 7.4b5:

Table 3 *Resolved Issues in AirWave 7.4b5*

ID	Description
DE9584	Previously, Modify Devices > Import Unreferenced Profiles would run slowly and timeout when importing a large number of devices (>150). Now, you can only select up to 30 controllers to when importing an unreferenced profile.
DE9786	Added HREAP back to the AP Mode drop-down menu for Cisco 1100 and 3201 LWAPPs.
DE10333	VisualRF: Fixed the inconsistent usage of Data Rate/Speed and Utilization/Ch.Utilization in VisualRF.
DE10335	Regulatory domains in AMP have been updated and are now consistent with ArubaOS UI.
DE10336	VisualRF: Previously, the Channel(vector/grid) radio buttons in QuickView Preferences > Overlays option still appear despite the Channel overlay having been removed. AirWave 7.4 removes the Channel option from the grid lines dialog box.
DE10356	Previously, usage for a wired client on a thin AP was not being graphed for the thin AP or its controller. Now, thin APs display wired client usage per interface In/Out, and controllers display wired client usage aggregated over their thin APs usage; this will be tracked as Max/Avg Usage for Wired in the graphs.
DE10376	VisualRF: Fixed an issue in which the button to add a floor plan did not display for users with read-only access to AMP and read/write access to VisualRF.
DE10391	VisualRF: Fixed an issue in which campuses would be placed on the top left when auto-arrange is run the second time, or if zoomed in.
DE10394	Fixed an issue in which the AMP report runner would run out of memory when trying to run a Client Sessions Report. The Client Sessions Report now only stores required records in memory rather than storing all of the records.
DE10406	AMP now prevents triggers from crashing due to stale cached trigger data.
DE10426	When an Aruba Instant IAP fails to authenticate to AMP because of shared secret mismatch, it will be marked down with status " Mismatched Virtual Controller shared secret ". The Manage page now allows you to edit the shared secret AMP is expecting, and in the case of a mismatch, the "View Device Credentials" link will display AMP's secret as well as the secret that was last received from the IAP.

Table 3 *Resolved Issues in AirWave 7.4b5 (Continued)*

ID	Description
DE10520	VisualRF: Permissions to import floor plans from backup is now as follows: 1. Admins have import permission. 2. Management/audit/monitoring user can import only if the user has Read/Write access to VisualRF. 3. In all other cases, import is disallowed.
DE10522	VisualRF: Floor plan with a newly added Aruba Instant IAP no longer goes blank after a page refresh.
DE10527	Fixed a large performance regression in AMON data processing (channel utilization and goodput processing).
DE10536	Fixed the very long upgrade times that began in 7.4b4.
DE10544	The Master Console Network Usage report now includes max bandwidth usage information.

Table 4 below lists resolved issues in AirWave 7.4b4:

Table 4 *Resolved Issues in AirWave 7.4b4*

ID	Description
DE8968	Users now require an account on support.arubanetworks.com to update AMPs.
DE9802	Previously, a failed audit of an AOS 6.1.1 device would cause a high CPU load and prevent configuration importing. This has been fixed in 7.4b4.
DE9896	Previously, searching a group name in the Master Console would display incorrect duplicate results on managed AMPs. This was fixed by removing caching of results.
DE9957	Previously, pushing out an updated RAP whitelist or policy would cause RAP devices to disconnect, including unrelated RAPs without a set AP name. This has been fixed.
DE10247	VisualRF: The deployed devices list is now properly sorted alphabetically.
DE10335	Previously, the regulatory domain of valid channels in AMP was inconsistent with ArubaOS controllers reports. This has been fixed in 7.4b4.
DE10381	Previously, for some users of Chrome and Safari, selecting Modify Devices may not pause the console refresh to allow changes to be made. This has been fixed in 7.4b4.
DE10411	By changing to a more reliable OID, Juniper switches and devices are now longer showing as down in AMP.

Table 5 below lists resolved issues in AirWave 7.4b3:

Table 5 *Resolved Issues in AirWave 7.4b3*

ID	Description
DE9433	VisualRF now displays Chinese/Japanese characters in clients or rogues on a floor plan properly.
DE9995	Previously, Master Console failed when attempting to acknowledge a large number of alerts (>1700) on Managed AMP. Now, Master Console can acknowledge a larger number of alerts at a single time.
DE9836	Fixed an issue that caused Aruba 651 internal APs to display as down, even if they are up during discovery.
DE9847	Fixed an issue in which the network background image in AirWave 7.2.3 may be lost when restoring a backup from a freshly installed 7.3 AMP to the same AMP, or another of the same version.
DE9851	Previously, changing the Default Folder to the "Last Visited" option in an AP list, then clicking CSV export, was causing a page crash. This has been fixed in 7.4b3.
DE9924	For both groups and devices, Maintenance Windows are now unique by name. Previously, duplicate names were permitted.
DE9937	VisualRF: The Auto-arrange feature for campuses and buildings now displays an alert message if there are too many campuses or buildings to sort. The message is "You are attempting to arrange more icons than can fit in the background without overlapping. Please decrease the icon size or consolidate campuses and buildings as appropriate."

Table 5 *Resolved Issues in AirWave 7.4b3 (Continued)*

ID	Description
DE10008	Master Console no longer crashes if it fails to unmanage configuration on a Managed AMP.
DE10028	Master Console Down list no longer reports devices in planned maintenance mode.
DE10032	Fixed a page crash that can occur when viewing Managed AMP Alerts in the Master Console.
DE10089	VisualRF: Fixed an issue where, if AP Location is enabled under Preferences , overlays would not display for APs with status 'suspect'.
DE10150	Previously, a configuration failure may be reported by AMP when changing the name of an AP and setting it to Manage mode.
DE10229	Fixed an issue that prevented firmware upgrade to Aruba OS 5.0.3.0 from working for Aruba A804 controllers.
DE10304	The Import tab now properly displays for users with read-write VisualRF access, even if they have read-only access to AMP (at the AP/device Access level).
DE10331	Fixed an issue in which a user with the Guest Sponsor role could not add a new user without causing a refresh loop.
DE10340	Fixed an issue in which users with a percent character (%) in their password could not log in to 7.4b1 or 7.4b2 in the UI.
DE10387	For Mac OS X Lion users running Firefox, the AMP search field no longer triggers a search when a shift-key character (like a colon or less-than sign) is typed into the field.
DE10413	Mouseover tooltips on the Top Header Stats have been restored.

[Table 6](#) below lists resolved issues in AirWave 7.4b2:

Table 6 *Resolved Issues in AirWave 7.4b2*

ID	Description
DE10026	Fixed a page crash that occurred when canceling an ArubaOS firmware upgrade from 6.1.2.0 to 6.0.1.3.
DE10034	A memory leak in AMP's client monitoring process that occurs when user count increases dramatically was fixed.
DE10035	When a device is in the planned maintenance mode, the Detailed Status column in lists of APs and the APs/Devices > Monitor pages now displays the message 'Device in planned maintenance mode' even during a poll period. Previously, this status message would be overwritten when polled.
DE10180	Adding a Maintenance Window in APs/Devices > Manage could fail in 7.4b1, but now works correctly.
DE10185	Aruba AirMesh firmware version was displaying as 4.3..0 in Device Setup > Upload Firmware & Files . It has been corrected to display the firmware version as 4.3.0.0.
DE10217	In the VPN Session report, the references to 'clients' have been changed back to 'users.'
DE10233	Fixed an issue in which Connected Time columns in lists and search results of Clients were displaying 'NaN minutes'.
DE10302	VisualRF: A recent change caused AP and sensor overlay checkboxes to disappear, so the overlays could not be enabled. This has been fixed in 7.1b2.

[Table 7](#) below lists resolved issues in AirWave 7.4b1:

Table 7 *Resolved Issues in AirWave 7.4b1*

ID	Description
DE8298	Added mesh AP radio antenna type to the list of supported models in VisualRF to fix errors that occurred when viewing Service Coverage for mesh APs in Google Earth.
DE9208	High-bit characters can no longer be entered in input fields in Aruba Configuration.

Table 7 *Resolved Issues in AirWave 7.4b1 (Continued)*

ID	Description
DE9322	VisualRF: New users added to AMP will no longer need to restart VisualRF to see racks and devices in IDS.
DE9371	VisualRF now ensures that the iptables rules UID matches its VisualRF UID. Previously, VisualRF would fail to restart if the two UIDs did not match.
DE9419	The visualrf_audit.log, visualrf_db.log, visualrf_msg.log, and visualrf_ui.log files have been added to the VisualRF diagnostic .zip file.
DE9434	VisualRF: The Bandwidth field in the Properties menu for a client was previously indicating NaN bps, rather than 0 bps. This parsing error has been fixed in 7.4.
DE9470	Fixed issues deleting profiles while importing Aruba configuration in Group configuration mode: - deleting a parent (such as an Aruba AP Group) and joined object (Aruba Virtual AP profile) at once causing crashes. - when looking up existing objects, AMP had assumed they had not been deleted already during the import process. This only manifested when a RAP whitelist entry pointed to an Aruba AP Group that was not actually on the controller (but was on AMP when a user tried to import). - crashes could happen when importing from older firmware versions that do not support certain profiles or settings. If an unsupported profile or setting is referencing a profile the import is trying to delete, the import will not unset/delete the referring object, but will instead gracefully skip the delete and log a message about not deleting the profile because it is still in use.
DE9600	Previously, some devices with 'Good' configurations would report a mismatch when coming up from a down or reboot event. This meant that a changed Aruba AP Group could accidentally be imported when thin APs have gone down and up. Note that Group Aruba Configuration profiles that reference Global configuration profiles are still repaired when switching between Global and Group configuration modes.
DE9613	The two default Device Event trigger definitions created during AMP upgrade or installation now have the 'Top' folder set as the default.
DE9615	Aruba Configuration now validates non-null values in the ESSID field in Profiles > SSID . In AMP, the value for that field is now 'aruba-ap' by default. This field is not validated in the WLAN Wizard, but still requires user input.
DE9636	Previously, only Aruba-branded controllers would show the Quick Links feature in the Device Info section of the APs/Devices > Monitor page. Now, any brand of Aruba controller (Aruba, Alcatel-Lucent, or Dell) will show Quick Links.
DE9644	Fixed an issue that was causing Cisco LWAPP APs monitored with SNMPv3 to appear to go down in AMP after a Cisco controller reboot. This was caused by the controller failing to increment its SNMPEngineBoots counter when it is rebooted and its SNMPEngineTime counter has reset. Now, if the error occurs with a Cisco WLC controller, AMP restarts the SNMP fetcher and logs the event.
DE9653	The show ap run command drop-down menu no longer appears for Aruba Instant IAPs.
DE9675	Renamed the 'Down APs List' page to 'Down Devices List' on Master Console.
DE9719	Added a method to remove duplicate thin APs that had caused discovery crashes.
DE9748	In order to prevent possible upgrade failures, maintenance is performed on the database during the upgrade process.
DE9751	The CPU graphs in the APs/Devices > Monitor page for an Aruba Instant Virtual Controller now properly display data.
DE9830	Previously in AMP 7.2.4, some newly added Aruba controllers did not display SSIDs in the Group > Monitor or Group > List page in AMP when polled. This has now been fixed.
DE9846	Added a Configuration Templates section to the Device Setup > Communication page that allows a user to specify whether the default internal AMP IP address or an external IP address is used for the %manager_ip_address% variable in Aruba Instant and Cisco IOS group configuration templates.
DE10032	Master Console Alerts page crashes when Managed AMP alerts are present.

Table 7 *Resolved Issues in AirWave 7.4b1 (Continued)*

ID	Description
DE10070	For IOS APs, the AP Include fields have been removed from the APs/Devices > Manage page and from the list of available variables in the template pages.
DE10182	AMP now properly restricts the firmware download protocol for Aruba AirMesh to FTP-only.
DE10266	VisualRF: Previously, editing could become locked when a user with the AP Manager role with read-write access to VisualRF and read-only access to devices tries to add a deployed AP. Only AMP Administrators and AP Device managers with read-write access to the device could edit floorplans. Now AMP retrieves the user role permission to determine if a user can perform write actions.

Known Issues

The following are known issues for AirWave 7.4.0:

Table 8 *Known Issues in AirWave 7.4.0*

ID	Description
	The following are known issues with stacking support for the Aruba Mobility Access Switch and other stackable switches: - Aruba recommends keeping Aruba switches and Aruba controllers in separate groups due to overlaps in configuration. - When an Aruba member switch is physically removed from a stack and the primary/master no longer reports information about it, AMP shows the message “Unexpected LAN MAC <failed to fetch> rather than a clear statement that the member has simply been removed. The user-friendly statement is shown correctly for Alcatel-Lucent switches. - AMP sets a switch role to “Unknown” if a member switch it does not appear in member discovery payloads, but this may result in minor interface monitoring issues. For instance, two members in a stack might have the same AP index (which identifies a member’s place in a stack) and interfaces may display on the wrong member switch. - If a Cisco 3750 stack is down and the master is brought up, non-persistent page crashes may result. The problem usually resolves after a few minutes.
DE10102	Clients wired to line cards are displaying in AMP as being associated to the Primary switch. This does not affect client count and bandwidth usage statistics, but affects slot differentiation.
DE10565	VisualRF: Clients of Aruba Instant IAPs may appear on the wrong floor plan.
DE10629	The Trigger Definition “Total Radius Authentication Issues” is missing a Suppress until Acknowledged field.
DE10657	Stacked line card (member) switches may report a mismatch. The desired behavior is that primary/master switches should handle configuration, and line cards should always should a “Good” configuration status.
DE10658	AirWave has not yet universally changed the terminology for switches from master/member to primary/secondary/line card in some buttons and list columns.
DE10669	VisualRF: Switches and controllers display as down after restoring from backup until VisualRF is restarted.
DE10670	VisualRF: Floor plans need to be refreshed to display the heatmap after autoprovisioning APs.
DE10673	VisualRF: If APs are brought up from the down status, the AP radio may display an error.
DE10674	VisualRF: Restart is required to view overlays after importing a controller’s floor plan backup.
DE10685	When attempting to view a rogue detail page from a Master Console using the rogue client report, an Access Denied page may display.
DE10686	VisualRF: Restart is required if a device override is applies for all client devices. If done individually, only a page reload is needed.

Table 8 *Known Issues in AirWave 7.4.0 (Continued)*

ID	Description
DE10689	Page crashes may occur if you add an Aruba Mobility Access Switch, then immediately attempt to import configuration. It is recommended to wait until after the first polling period, or (more conservatively) 15 minutes after adding a new switch.
DE10695	AMP does not support downgrading a primary Aruba Mobility Access Switch from AOS 7.0.4.0 from 7.1.
DE10697	Device health memory threshold is set at 80% for switches but not controllers.
DE10702	Helpdesk users can see the VisualRF floor plan in the Current Association sections and in search results even when VisualRF is disabled for the role.
DE10711	Installing the device-mapper rpm fails on any system where both the i386 and x86_64 versions of the old rpm exist.
DE10713	Added extra logging and exception handling to help diagnose instances in which AMP pages do not resolve or fully load.
DE10716	In the Port Usage report, the Unused ports vs. number of switches graph does not display for large sets of data.
DE10733	The standalone Aruba Mobility Access Switch displays duplicate interfaces in the APs/Devices > Interfaces page.
DE10745	VisualRF: Displays a switch's port status as Up when the switch itself is actually Down.
DE10748	VisualRF: The Floor Plan column in APs/Devices list tables is not populated for switches and controllers.

The following are known issues for AirWave 7.4b6:

Table 9 *Known Issues in AirWave 7.4b6*

ID	Description
DE10323	In the Detailed Status column of APs/Devices lists, devices in planned maintenance mode initially display a redundant detailed status.
DE10327	AirWave updates device state from "Importing" to "Mismatched" before import is completed.
DE10388	The SSH Port field is missing on an Aruba controller's APs/Devices > Manage page.
DE10445	The database service can go down after restoring backup data.
DE10454	When changing a group timezone to an earlier timezone for a maintenance window, page crashes can occur and the maintenance window does not expire cleanly.
DE10473	Fixed a crash that could occur during channel utilization processing on 6.1 and older Aruba controllers.

The following were known issues for AirWave 7.4b5:

Table 10 *Known Issues in AirWave 7.4b5*

ID	Description
DE10531	VisualRF: Frequency selection option does not work for overlay bleed through.
DE10674	VisualRF: A VisualRF restart is required in order to view overlays after importing a controller's floor plan backup.

The following were known issues for AirWave 7.4b3:

Table 11 *Known Issues in AirWave 7.4b3*

ID	Description
US7697	The LAN IP address for RAP devices are not being sent over SNMP to AirWave. This will be fixed in a future update to AOS.
DE10081	VisualRF: In the Plan by Capacity feature, APs may not be evenly distributed on the floor plan.

The following were known issues for AirWave 7.4b1:

Table 12 *Known Issues in AirWave 7.4b1*

ID	Description
N/A	Controller is not sending VIA and VPN user data over SNMP when wired VPN users running on machines other than Windows XP are connected to controller.
DE9574	Manually classified rogues may be rediscovered/reclassified under the same RAPIDS rule. The problem may be due to an ARP IP Match Timeout or Ignore Rogues by Signal Strength setting.
DE9626	VisualRF: Unable to launch Google Earth for Mesh APs from IE8 and IE7.
DE9767	Aruba controllers may randomly send VPN tunneled_bytes_out which leads to incorrect calculation on Total Data used and bandwidth.
DE9968	Master Console Group Display settings are not getting pushed from Master Console group to local groups on Managed AMPs.
DE10036	VisualRF in 7.3.2: APs and Sensors may spontaneously switch roles. This can cause all clients connected to APs to not be placed because VisualRF thought they were connected to AMs. A VisualRF restart fixes the issue, and a permanent fix is being investigated.
DE10117	A crash may occur during member_switch monitoring, possibly on older firmware versions.
DE10152	VisualRF: UTF Data format exception may occur and prevent VisualRF from loading.



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